


[Short Contents](#) | [Full Contents](#)
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Molecular Cell Biology ➔ **3. Protein Structure and Function** ➔ 3.5.
Purifying, Detecting, and Characterizing Proteins

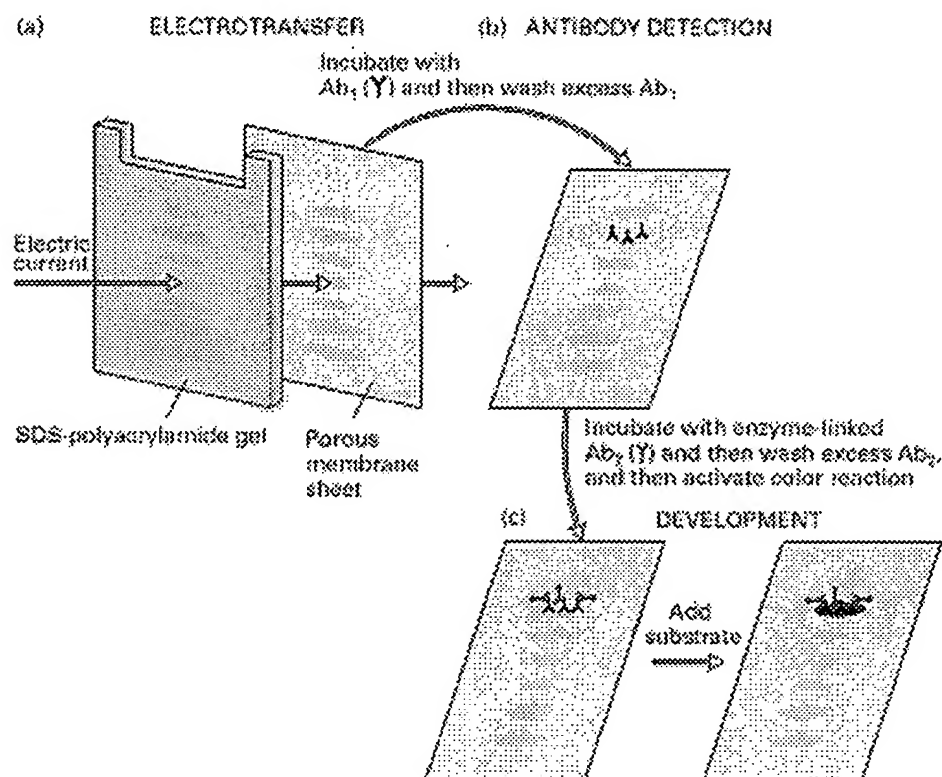


Figure 3-44. Western blotting, or immunoblotting. (a) A protein mixture is electrophoresed through an SDS gel, and then transferred from the gel onto a membrane. (b) The membrane is flooded with a solution of antibody (Ab_1) specific for the desired protein. Only the band containing this protein binds the antibody, forming a layer of antibody molecules (although their position can't be seen at this point). After sufficient time for binding, the membrane is washed to remove unbound Ab_1 . (c) In the development step, the membrane first is incubated with a second antibody (Ab_2) that binds to the bound Ab_1 . This second antibody is covalently linked to alkaline phosphatase, which catalyzes a chromogenic reaction. Finally, the substrate is added and a deep purple precipitate forms, marking the band containing the desired protein.



Immunoblotting.

Navigation

About this book

3. Protein Structure and Function

3.1. Hierarchical Structure of Proteins

3.2. Folding, Modification, and Degradation of Proteins

3.3. Functional Design of Proteins

3.4. Membrane Proteins

➔ 3.5. Purifying, Detecting, and Characterizing Proteins

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PERSPECTIVES in the Literature

Testing Yourself on the Concepts

MCAT/GRE-Style Questions

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